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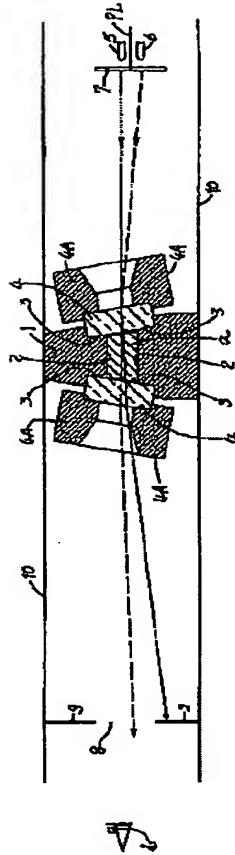
APPLICATION DATE : 06-12-01
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TITLE : LIQUID LEVEL DETECTING APPARATUS AND METHOD



ABSTRACT : PROBLEM TO BE SOLVED: To facilitate manufacturing and the mounting of a protecting plate by using a glass body of an approximately square cross section as glass for a liquid level inspection hole and substantially reduce electric power consumption and light loss, maintain uniform coloring display at a plurality of locations, and enable comfortable liquid level detection easy on the eyes by providing two-color coloring light sources as light sources.

SOLUTION: A liquid passage hole 2 for monitoring a liquid level of a column 1 is provided with an approximately trapezoidal cross section. The glass body 4 of an approximately square cross section is opposed to an opposing oblique side 3 of the liquid passage hole 2. A coloring light source 5 is opposed to the liquid passage hole 2. A coloring light source 6 of a color difference from that of the coloring light source 5 is biased to the widening side of the opposing oblique side 3 in the vicinity of the coloring light source 5. A ray-relaxing transmitting plate 7 with a large light transmittance is arranged close to light projecting surfaces of the light sources 5 and 6. A light shielding body 9 for detecting a liquid level with a see-through part 8 is opposed to the center of the liquid passage hole 2 and arranged on the side opposite to the light sources 5 and 6 in such a way as to sandwich the liquid passage hole 2. A transparent liquid (a) itself in the liquid passage hole 2 for monitoring a liquid level is used as a photorefractive prism.

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